



Technical Standard Order

Subject: TSO-C10b, ALTIMETER, PRESSURE ACTUATED, SENSITIVE TYPE

Part 514 contains minimum performance standards and specifications of materials parts, processes, and appliances used in aircraft and implements the provisions of sections 3.18, 4a.31, 4b.18, 6.18 and 7.18 of the Civil Air Regulations. The regulation uses the Technical Standard Order system which, in brief, provides for FAA-industry cooperation in the development of performance standards and specifications which are adopted by the Administrator as Technical Standard Orders, and a form of self regulation by industry in demonstrating compliance with these orders.

Part 514 consists of two subparts. Subpart A contains the general requirements applicable to all Technical Standard Orders. These provisions are summarized below for the convenient reference of the public. Subpart B contains the technical standards and specifications to which a particular product must conform, and each Technical Standard Order is set forth in the appropriate section of Subpart B. The subject Technical Standard Order is printed below. ANY TECHNICAL STANDARD ORDER MAY BE OBTAINED BY SENDING A REQUEST TO FAA, WASHINGTON 25, D. C.

SUBPART A--GENERAL

This subpart provides, in part, that a manufacturer of an aircraft material, part, process, or appliance for which standards are established in Subpart B, prior to its distribution for use on a civil aircraft of the United States, shall furnish a written statement of conformance certifying that the material, part, process, or appliance meets the applicable performance standards established in this part. The statement of conformance must be signed by a person duly authorized by the manufacturer, and furnished to the Chief, Engineering and Manufacturing Division, Bureau of Flight

Standards, Federal Aviation Agency, Washington 25, D. C.

Subpart A also requires appropriate marking of materials, parts, processes, and appliances as follows:

- (a) Name and address of the manufacturer responsible for compliance,
- (b) Equipment name, or type or model designation,
- (c) Weight to the nearest pound and fraction thereof,
- (d) Serial number and/or date of manufacture, and

(e) Applicable Technical Standard Order (TSO) number.

In addition, Subpart A provides that no deviation will be granted from the

performance standards established in Subpart B, and that the Administrator may take appropriate action in the event of noncompliance with Part 514.

SUBPART B

§ 514.20 Aircraft altimeter, pressure actuated, sensitive type - TSO-C10b--(a) Applicability--(1) Minimum performance standards. Minimum performance standards are hereby established for aircraft altimeters which specifically are required to be approved for use on civil aircraft of the United States. New models of altimeters manufactured for such use on or after September 1, 1959, shall meet the standards set forth in SAE Aeronautical Standard AS 392C,^{1/} "Altimeters, Pressure Actuated Sensitive Type," revision date February 1, 1959,^{2/} with the exceptions listed in subparagraph (2) of this paragraph. Altimeters approved under prior issuances of this section may continue to be manufactured under the earlier provisions.

(2) Exceptions. (i) The following specifically numbered paragraphs in AS 392C do not concern minimum performance and therefore are not essential to compliance with this section: 3.1, 3.1.1, 3.1.2, 3.2, 3.2(a)(b)(c)(d)(e)(f).

(ii) In lieu of Section 7. in AS 392C, it is a requirement that the altimeters covered by this section be capable of successfully passing the test in paragraphs 7.1 through 7.5 and an External Case Pressure Test which is as follows:

External Case Pressure Test. The static pressure source of the instrument shall be sealed when an ambient temperature of 25°C and an ambient pressure of 29.92 inches (absolute) of mercury have been achieved. The ambient pressure shall then be increased at a rate of 20 inches of mercury in two seconds to 50 inches (absolute) of mercury and held at that pressure for three minutes. There shall be no adverse effect on the instrument or its accuracy.

(iii) The "Reference Section" under Table II of AS 392C is not applicable.

(b) Marking. In lieu of the weight specified in Subpart A, the range shall be shown.

(c) Data requirements. One copy each of the following shall be furnished to the Chief, Engineering and Manufacturing Division, Federal Aviation Agency, Washington 25, D. C.:

^{1/} Copies may be obtained from the Society of Automotive Engineers, 485 Lexington Avenue, New York 17, New York.

^{2/} In addition to the performance standards herein, altimeters when installed in aircraft must meet installation requirements as well as functional and reliability flight tests of the pertinent airworthiness sections of the Civil Air Regulations.

- (1) Manufacturer's operating instructions.
- (2) Complete set of instrument's drawings of major components and a test report.
- (3) Installation procedures with applicable schematic drawings.
- (d) Effective date. September 1, 1959.